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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,907	02/25/2005	Burkhard Kroger	13111-00005-US	5445

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EXAMINER

CHOWDHURY, IQBAL HOSSAIN

ART UNIT	PAPER NUMBER
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1652

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/525,907	Applicant(s) KROGER ET AL.	
	Examiner Iqbal Chowdhury, Ph.D.	Art Unit 1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

This application is a 371 of PCT/EP03/09451.

Claims 1-16 are pending.

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group, I claim(s) 1-14, drawn to a process for fermentative production of a sulfur-containing chemical L-methionine by using the Coryneform bacteria comprising a gene having methylenetetrahydrofolate reductase (metF) activity.

Group, II claim(s) 15-16, drawn to a method for producing an L-methionine-containing animal feed using L-methionine-producing microorganism.

For each inventions I-II above, restriction to one of the following is also required under 35 U.S.C. 121 and 372. Therefore, election is required of one of inventions I-XI **and** one of inventions (A) - (B).

(A). protein of SEQ ID NO: 2 or a nucleic acid encoding SEQ ID NO: 2.

(B). protein of SEQ ID NO: 4 or a nucleic acid encoding SEQ ID NO: 4.

(C). protein of SEQ ID No: 6 or a nucleic acid encoding SEQ ID No: 6.

(D). protein of SEQ ID No: 8 or a nucleic acid encoding SEQ ID No: 8.

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- (E). protein of SEQ ID NO: 10 or a nucleic acid encoding SEQ ID NO: 10.
- (F). protein of SEQ ID NO: 12 or a nucleic acid encoding SEQ ID NO: 12.
- (G). protein of SEQ ID No: 14 or a nucleic acid encoding SEQ ID No: 14.
- (H). protein of SEQ ID No: 16 or a nucleic acid encoding SEQ ID No: 16.
- (I). protein of SEQ ID NO: 18 or a nucleic acid encoding SEQ ID NO: 18
- (J). protein of SEQ ID NO: 20 or a nucleic acid encoding SEQ ID NO: 20.
- (K). protein of SEQ ID No: 22 or a nucleic acid encoding SEQ ID No: 22.
- (L). protein of SEQ ID No: 24 or a nucleic acid encoding SEQ ID No: 24.
- (M). protein of SEQ ID NO: 26 or a nucleic acid encoding SEQ ID NO: 26.
- (N). protein of SEQ ID NO: 28 or a nucleic acid encoding SEQ ID NO: 28.
- (O). protein of SEQ ID No: 30 or a nucleic acid encoding SEQ ID No: 30.
- (P). protein of SEQ ID No: 32 or a nucleic acid encoding SEQ ID No: 32
- (Q). protein of SEQ ID NO: 34 or a nucleic acid encoding SEQ ID NO: 34.
- (R). protein of SEQ ID NO: 36 or a nucleic acid encoding SEQ ID NO: 36.
- (S). protein of SEQ ID No: 38 or a nucleic acid encoding SEQ ID No: 38.
- (T). protein of SEQ ID No: 40 or a nucleic acid encoding SEQ ID No: 40.
- (U). protein of SEQ ID NO: 42 or a nucleic acid encoding SEQ ID NO: 42.
- (V). protein of SEQ ID NO: 44 or a nucleic acid encoding SEQ ID NO: 44.
- (W). protein of SEQ ID No: 46 or a nucleic acid encoding SEQ ID No: 46.
- (X). protein of SEQ ID No: 48 or a nucleic acid encoding SEQ ID No: 48.
- (Y). protein of SEQ ID NO: 50 or a nucleic acid encoding SEQ ID NO: 50.
- (Z). protein of SEQ ID NO: 52 or a nucleic acid encoding SEQ ID NO: 52.

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(AA). protein of SEQ ID No: 54 or a nucleic acid encoding SEQ ID No: 54.

2. The inventions listed as Groups I - II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I drawn to a process for fermentative production of a sulfur-containing chemical L-methionine by using the Coryneform bacteria comprising a gene encoding methylenetetrahydrofolate reductase (metF) polypeptide and Group II drawn to a method for producing an L-methionine-containing animal feed using L-methionine-producing microorganism. The only shared technical feature of these groups is that they all relate to polynucleotide encoding a methylenetetrahydrofolate reductase (metF) polypeptide. However, this shared technical feature is not a "special technical feature" as defined by PCT Rule 13.2 as it does not define a contribution over the art. According to the search report (PCT form 210), a DNA encoding a methylenetetrahydrofolate reductase (metF) polypeptide is known in the art (WO 02/10206 A2; Bathe et al. "Nucleotide sequences which code for the metF gene", published 2/7/2002, see IDS). Thus, a DNA encoding a methylenetetrahydrofolate reductase (metF) polypeptide does not make contribution over the prior art. Therefore, it lacks special technical feature.

3. The proteins of Group (A)-(AA) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different nucleotides encoding proteins of Group (A)-(AA), which are polypeptides having metF, do not have special technical feature among each other because they all represent structurally different polypeptides and polynucleotide encoding them. As mentioned

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above, a DNA encoding a polypeptide metF activity protein is known in the art and does not make contribution over the prior art. Therefore, they all lack special technical feature.

37 CFR 1.475 does not provide for multiple products and/or methods within a single application. Therefore, inventions of Group I - II lack unity of invention.

This application contains **claims directed to more than one species** of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Group I includes the use of microorganisms having series of genes **overexpressed or mutated** in addition to expression of the metF gene as mentioned in **claim 12**. The species of Group I are: the lysC gene; the glyceraldehydes-3-phosphate dehydrogenase-encoding gene gap gene; pgk gene; pyc gene; tpi gene; metA gene; metB gene; metC gene; glyA gene; metY gene; metH gene; serC gene; serB gene; cysE gene; and hom gene and a series of genes which are attenuated such as the thrB gene; ilvA gene; thrC gene; ddh gene; pck gene; pgi gene; poxB gene; dapA gene; dapB gene; and diaminopicolinate decarboxylase-encoding gene.

Applicant is required, in reply to this action, to **elect a single species** to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the

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limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iqbal Chowdhury whose telephone number is 571-272-8137. The examiner can normally be reached on 9:00-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 703-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully,

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